

New Approaches to Integrating  
STIs, HIV/AIDS, Family Planning  
and Reproductive Health in  
Bazèga, Burkina Faso

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**March 2003**

This study was funded by the U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT (USAID) under the terms of Cooperative Agreement Numbers HRN-A-00-98-00012-00 (FRONTIERS) and HRN-A-00-97-00012-00 (HORIZONS), and Population Council Project Number 5800 13018 433. The opinions expressed herein are those of the authors and do not necessarily reflect the view of USAID.

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## Background

Burkina Faso is a relatively small, landlocked Sahelian country in the heart of West Africa. The Gross National Product (GNP) has been estimated at US\$310 per person, and approximately 45 percent of the population, particularly women and those in rural areas, is considered to be living in poverty – almost 28 percent in “extreme” poverty. The population is characterized by its extreme youth (49% less than 15 years of age; 3.6% over 65 years of age), and by high fertility and a rapid growth rate (2.7% per year; Total Fertility Rate (TFR) of 7.4 children per woman).

Although there have been positive changes over the past 30 years, Burkina Faso’s reproductive and general health indicators still paint a somber picture: life expectancy of 52.2 years; maternal mortality ratio of between 550 and 850 per 100,000 live births; infant mortality rate of 93.7 per 1,000; an estimated 70-80 percent of women undergoing female genital cutting (FGC); and high rates of sexually transmitted infections (STIs), including one of the highest rates of HIV infection in the world.

In 1995, in response to these conditions, the *Direction de la Santé de la Famille* (Directorate of Family Health, or DSF) of the Burkina Faso Ministry of Health joined with the Population Council and, in collaboration with the *Unité d’Enseignement et de Recherche en Démographie* (UERD) of the University of Ouagadougou and Mwangaza Action (a local community development NGO), created a *Laboratoire de Santé Communautaire* (Laboratory of Community Health, or LSC). The LSC was located in Bazèga province, a rural area of 5,599 square kilometers approximately 40 kilometers south of the capital Ouagadougou and comprising about 388 villages with a total population of around 390,000. The major ethnic group in this area is the Mossi; 38 percent of the population is Muslim, 29 percent Animist and 27 percent Catholic. The region is predominately agricultural, and 87 percent of the population is illiterate. The aim of the LSC was to develop and test innovative community-level health interventions, some of which may then be scaled up to the regional and national levels.

Under the Africa Operations Research and Technical Assistance Project II, several operations research studies were undertaken through the LSC. Lessons learned from these OR studies included the following:

- The community-based service delivery experiment in Bazèga did result in higher contraceptive prevalence rates, but these remain less than 10 percent. Reasons for this appear to include:
  - Bazèga residents perceive broader health needs (treatment for malaria and diarrhea, for example) to be more pressing than the need for family planning (FP);
  - Community-based distributors (CBDs) recorded an extremely low level of contacts with clients, in part because they may not have been perceived to be offering important services, but also because some residents did not approve of male CBD workers talking with married women;
  - Motivation of CBD workers (who received very little in the way of financial rewards) appears to have been low;
  - Supervision of and support for the CBDs was not strong or consistent.

- Bazèga residents frequently cite lack of availability and expense of medical services and supplies as barriers to treatment. It seems reasonable to conclude that these barriers limit people's use of reproductive health (RH) facilities and services in the province.
- Among Bazèga residents, there are significant difficulties in acknowledging the presence of STIs and seeking treatment for them. These include erroneous notions about causes and best treatments for STIs, shame and embarrassment associated with talking about them, difficulty presenting such conditions to providers for care, and fears among women that husbands will repudiate them if they are found to have infections.
- On the other hand, research revealed a number of possible avenues for further improvements in RH services and outcomes. In general, residents expressed confidence and trust in both the rural health centers and the CBD workers, even as they wished that such workers might provide important services beyond FP. More particularly, men and women expressed willingness for CBDs to offer counseling, support, and referral during and after pregnancy, and approved of the idea of such counseling being offered to couples as a unit. In the case of pregnancy counseling, residents did not seem to feel that CBD agents of one sex would be preferred over those of the other.
- Both women and men agree that men have some role to play in RH – particularly surrounding pregnancy. Although women say that men often do not actually execute this role – failing to help them with heavy work or to provide means for them to go to health centers for necessary care, for example – the potential appears to exist to involve both members of the couple in RH activities.
- Awareness of HIV/AIDS appears to be high, even if steps to stop its transmission are lagging.

The goal of this study was to develop a knowledge base for designing approaches to improving reproductive health in rural Burkina Faso that could be tested experimentally through the LSC by undertaking an assessment of various aspects of reproductive health and RH services. This assessment focused on the community, on clinics, on the existing CBD program, and on various community development associations. The LSC team, led by Population Council staff and consultants, and with collaboration of staff from the DSF, UERD and Mwangaza, conducted the assessment. Financial and technical support for the assessment was provided from three of the Population Council's programs: the Frontiers in Reproductive Health and the Horizons Programs (both funded by USAID), and the Gender, Family, and Development Program<sup>1</sup>. Six separate studies were undertaken as components of this assessment, the results of which follow.

This assessment has helped to contribute to a better understanding of several aspects of reproductive health and of the associated health-seeking behavior in rural Burkina Faso. The results from these six studies have been disseminated to the Ministry of Health and other interested parties in Burkina Faso, including recommendations for action that could be taken to

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<sup>1</sup> With funding from the Gates Foundation and UNFPA/Burkina Faso.

improve some of these situations. With the decentralization of decision-making to the district levels, it is hoped that future action plans for the districts can take into account these results and develop services that are appropriate given these conditions.

# Results

## Study 1. Assessment of the role of CBD agents

The LSC CBD program recruited 84 CBD agents to offer family planning, education and information on Female Genital Cutting (FGC), STIs/HIV information and care, chloroquine for malaria treatment, and oral rehydration salts (ORS) for the treatment of diarrhea in children. An evaluation of the impact of the CBD program<sup>2</sup>, and an analysis of data from the MIS<sup>3</sup> have already been undertaken to provide an understanding of the program's productivity and effectiveness. As part of the assessment reported here, the attitudes of CBD workers, and of their ability to provide family planning, STIs/HIV, prenatal, and other types of RH care, was conducted in order to guide the revision of training programs and materials. Researchers interviewed 70 of the 84 CBD agents and 38 clients, and observed 24 counseling sessions. All 11 supervisors and 18 community opinion leaders were interviewed, and six focus group discussions held in communities, three with men and three with women.

Of the 70 agents surveyed, 56 percent were male and 44 percent were female and virtually all were Mossi. Only one quarter was literate, while 17 percent had a primary education and three percent had a secondary education. Only one of the agents was single, although 10 percent were divorced or separated. The majority did agricultural work (67%), 14 percent were home-based workers, and 11 percent were businessmen. More than half of the agents reported that they themselves used a modern family planning method.

Ninety-four percent of the agents felt it was acceptable for a man to provide a woman with family planning services and important for men to be involved in the CBD program. Many members of the community agreed:

*"It is preferable that the team is mixed because there are some parts a woman alone couldn't handle, and other times when a woman is frequently unavailable: during pregnancy, maternity, because of her husband's mood,"* – group discussion participant.

However some participants did express a preference regarding the gender of their agent.

*"For certain problems like FP and STIs, it is preferable to have a presenter of the same sex,"* – group discussion participant.

Some changes over time were noticeable in the agents' knowledge of health issues. For example, 70 percent of agents cited elimination of standing water and 34 percent cited sleeping with a mosquito net as malaria prevention methods. All agents knew about ORS as treatment for diarrhea and 83 percent had prescribed it. Whereas in 1996, 17 percent of the agents said that FGC had advantages, by 1998 all of them reported that there are no advantages to FGC. Although knowledge that condoms can prevent STIs/HIV transmission improved, disappointingly, knowledge of other means of transmission prevention did not change much (see Table 1).

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<sup>2</sup> Laboratoire de Santé Communautaire. 1998. *Evaluation de la Stratégie de Distribution à Base Communautaire*, Population Council, UERD and MOH: Ouagadougou, Burkina Faso.

<sup>3</sup> Laboratoire de Santé Communautaire. 1999. *Results From the Management and Information System (MIS) data of Community-Based Distribution Workers in Bazega, Burkina Faso*, Population Council, UERD and MOH: Ouagadougou, Burkina Faso.

**Table 1: CBD agents' knowledge of STIs/HIV prevention methods**

Prevention method	1996 (n = 84)	1998 (n = 70)
<b>Condoms</b>	67%	94%
<b>Having only one partner</b>	52%	58%
<b>Avoiding sex workers</b>	32%	15%
<b>Avoiding used/unsterilized needles</b>	15%	10%
<b>Avoiding contact with contaminated blood</b>	17%	7%
<b>Abstinence</b>	0	23%

The survey indicated that community members supported the work of CBD agents, but would like them to provide care and counseling along with the other services. Of 827 women interviewed in the intervention area, 448 said that they had heard about the services offered by CBD

agents and of these, 91 percent said that they knew their CBD agent personally.

Community leaders were well informed about the CBD project and helped to choose the agents. In principal, they are expected to mobilize the community for group discussions and help resolve conflicts that may arise. About half of the CBD agents interviewed acknowledged that the community supported their work, and 60 percent were satisfied with the support they have received. All of the agents said they are confident that their work has had an impact on the community.

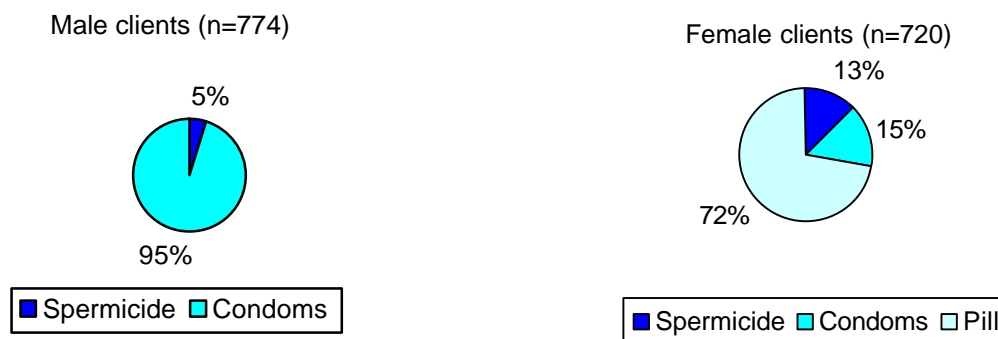
Each agent was supposed to receive a supervisory visit once every three months by the Administrative Health Committee (COGES), and a detailed report of the visit was required. Records indicated that the supervision team visited only one-third of the CBD agents during the six months preceding the survey, although 81 percent of the agents said that they had been visited during that period. The lack of a consistent project coordinator within the MOH made it difficult to gather key information and undertake supervision on a regular basis – over the two-year period of the project, four different people played this role.

*“Ever since the trainings were completed, those in Ouagadougou have forgotten us,”* – CBD agent.

During implementation of the intervention the MOH decentralized the health system nationwide, and so responsibility for the CBD program shifted to the Regional Health Directorate (DRS), which unfortunately was not prepared to take on this extra supervisory responsibility.

On average, each agent served 2.5 old and new family planning clients per month. Each client was visited an average of 2.7 times a year by their CBD agent (ranging between 1.3 and 3 visits per year). As can be seen in Figure 1, the vast majority of male clients purchased condoms, whereas for female clients the pill was by far the most popular method.

**Figure 1: Products sold to new male and female FP clients**



Quality of care for all services provided could have been improved. For example, of the 24 counseling sessions observed, in only 11 did the agent inform their client about the contraceptive method chosen and explain how to use it. When interviewed, two-thirds of agents said that they use the list of contraindications when prescribing the pill and 42 percent said they explained how to use the pill. Only six percent reported discussing side effects with clients and 10 percent would ask the client if she is breastfeeding. Only 10 of the 18 agents observed advised clients what to do when they forget to take a pill. Ninety-seven percent of agents said they give clients information about STIs/HIV, but 72 percent of these agents did not know that the pill provides no protection against disease.

During the oral rehydration demonstrations, 17 out of 24 agents washed their hands before preparing the solution. During the prenatal counseling sessions, the research team observed that only 20 percent of agents advised men to accompany their wives to prenatal clinic visits, one quarter told men they should offer their wives moral support during pregnancy, and two-thirds advised men to help their spouses with their work during pregnancy. No CBD agents suggested that the man should accompany his wife during the birth.

The community group discussions observed focused on STIs/HIV transmission and prevention. All of the agents discussed modes of transmission, but only 13 of the 24 told participants about STI symptoms, and only five gave information about the symptoms of HIV/AIDS. Twenty-one of the agents talked about condoms as a means of disease prevention, but only seven agents talked about them as a means of spacing births.

Educational materials and contraceptives were often out of stock. Sixteen percent of the agents reported that they had run out of products to sell. As part of the intervention, agents were given pictograms, and data collection tools were developed to monitor their activities. During the observations, researchers noted that only half of the agents had any of these materials.

In villages where the Catholic Church had strong influence, the CBD program was less successful. Priests were strongly opposed to family planning in these villages and advised their parishioners to refuse contraceptives. However, the priests were supportive of agents' work to educate the population about STIs and HIV/AIDS.



Outreach to adolescents was not effective, possibly because only five percent of the agents were below 24 years of age. However, 87 percent of the agents said they were comfortable discussing STIs/HIV with adolescents between the ages of 14 and 24.

Motivation of the agents, as with most CBD programs, remained one of the largest obstacles for the program. Originally, agents were motivated to participate with the knowledge that they would receive supervision and training, in addition to a bicycle and a financial commission for the contraceptive products sold. However, the commission system fell far below expectation because a portion of the profit went to the management committees and another part went to replenish stock.

Obstacles to the program include:

- Geographic area agents were assigned to cover required them to travel long distances
- Opposition to FP by church leaders
- Contraceptives were often out of stock, or lacking in variety
- Insufficient funds to maintain bicycles
- Motivation of agents was poor
- Agents were perceived to be inflexible
- Community mobilizations were weak
- Insufficient educational materials

The MOH set the prices and CBD clients paid the same price for these services that they would pay in a clinic, thus not making them any more economically accessible. As a consequence of their low levels of productivity and the small commission retained, CBD agents received a very low monthly income, averaging 500 CFA (less than US\$1). Not surprisingly, half of the agents reported that they were not satisfied with the commission system.

The study concluded that the clear weaknesses in the program could be addressed if the national regional health ministries were willing to seriously review the supervisory, monitoring and supply systems. All the weaknesses identified during this study (See the box for a summary), would have to be addressed if the approach is to be sustained and/or replicated elsewhere in the country.

In summary, the key findings were:

- Low productivity (2.5 client visits per month per agent, 2.7 visits per client per year, monthly commission less than US\$1)
- Poor quality of services offered
- Lack of supervision
- Frequent stock outs.

As a result, the following recommendations were made:

- Regularly retrain agents about community health issues in general and the specific needs of pregnant women, men with STIs, and adolescents
- Pay attention to criteria of age and gender when choosing agents
- Ensure monthly supervisory visits and reports completed

- Recruit a permanent coordinator who can manage activities on the ground
- Find new ways to pay the agents a commission
- Ensure that community leaders and management committees take responsibility for mobilizing community meetings
- Institutionalize planning and evaluation meetings with the management committee
- Revise the information collection sheets and train both the agents and their supervisors in their use
- Assure that product stocks are constantly available.

## Study 2. Condom availability

Condoms were believed to be available in the Bazèga area, through both the Government and social marketing programs, but the question was: where can people actually find them? How do people get condoms from providers (in couples, alone, during daytime, nighttime, men, women, youths...)? Do people purchase condoms secretly? If so, why and how? Such information was obtained from interviews with a sample of the different types of providers such as: health providers, traders, pharmacists, AIDS Control Associations/NGOs working in the study zones, and the CBD workers.

The study team chose six villages in the LSC area and conducted a systematic investigation to explore possible condom sources including public, private, formal and informal commercial outlets. Information was collected through in-depth individual interviews and group discussions with 29 providers and 10 focus group discussions (FGDs) with groups of men and women, segmented by age and marital status. The six villages were chosen according to their proximity to a health center: two directly adjacent to a center, two 5 km from a center, and two 10 km from a center. Within the six villages, the study targeted 29 distribution points and interviewed condom distributors including health care providers, pharmacists, shopkeepers, and CBD workers. In addition, 10 program managers from the DSF, a condom social marketing program (PROMACO), and the National AIDS Committee (CNLS) were interviewed.

The specific objectives of this study were to:

- Assess the availability by type of condom (male, female, and brand)
- Describe the profile of condom users and condom suppliers
- Identify obstacles to condom use as perceived by providers.

The male condom was the only type available in Bazèga; the female condom was unknown by both users and providers because it was not available in Burkina Faso at that time. Respondents were most familiar with the brand *Prudence*, which had been promoted by PROMACO through a broad social marketing campaign. *Prudence* was sold for 50 CFA (US\$0.12) for a pack of four. Unmarked brands with no logo are sold for 10 CFA each, but are much less popular with consumers who assume the lower price indicates poorer quality.

The private sector was clearly the main supplier of condoms. Among the 29 sales points identified, 25 were private sector vendors, including kiosks and peddlers. It is important to note, however, that CBD agents supplied the community with government-issued condoms.

Twenty of the 29 providers interviewed were men, and vendors varied in age from 17 to 61. Most had a primary education, except the government health workers who had a secondary education. The majority of providers interviewed had never been trained in demonstrating how to use a condom. Condoms were stored in cartons, well protected from light, heat and dust. No expired condoms were found and stock outs were reported to be infrequent, presumably because all of the villages were in close proximity to Ouagadougou and connected by roads that were reliable throughout the year. It was difficult to determine how many condoms were sold per month because many vendors were illiterate and did not keep records; however, estimates were in the hundreds. According to the vendors, all condom clients were male, aged between 17 and 50. Condom sales occur day and night, although the best sales period is nighttime. The providers also reported that sales peaked during the cold and rainy seasons as well as the holidays.

Some married couples use condoms for contraception, but others use condoms as a preventative measure against STIs in extra-marital and casual sexual relations.

*“If you can’t be faithful to your wife, use a condom,”* – married male, Tintilou.

*“You use condoms to space births, because you cannot think of diseases. It’s difficult. God alone can protect us from those,”* – married female.

*“Condoms prolong life,”* – married male, Toécé.

*“I use condoms with all my partners because I don’t trust anyone.”* – single female, Kombissin.

*“Condoms allow you to avoid AIDS, especially in men who only have one sexual partner.”* – married female, Bassemyam.

The survey found, however, that less than half the population knew where to obtain a condom. Characteristics such as the provider’s age and gender were thought to influence condom use. For example, vendors believe that young sellers are less apt to keep their clients’ identities confidential. Men also indicated that they are often embarrassed to buy condoms from female vendors.

Three main factors were reported to deter condom use. Some people considered the cost quite high and would like it to be lower, or possibly free of charge. Others raised cultural and religious objections. However, the most frequent problem raised by both vendors and users was perceived reduction of sexual pleasure. Training providers is highly recommended to help them assist their clients. It was also recommended to test the acceptability of the female condom.

### **Study 3. Couple-oriented services for pregnant women**

Both women and men had expressed a willingness to receive pregnancy-related counseling from CBD workers; furthermore, adult men and women generally seemed to like the idea of being counseled together as couples. Given the cost of services and the difficulty of getting to health centers, there was reason to believe that antenatal counseling by CBDs might even be preferred to receiving such counseling at the health center. Moreover, from a public health point of view, pregnancy – and especially a couple’s first pregnancy – represents an opportunity for engaging the interest of both partners. Given that men generally do not feel welcome at MCH/FP facilities, however, outreach such as CBDs will probably be required to enable male participation.

To reach out to pregnant women and their husbands, however, it is first necessary to find them. In earlier research, Bazèga residents had expressed somewhat conflicting feelings about the public acknowledgment of pregnancy. On the one hand, there is some indication that pregnancy is felt to be a private matter to be discussed only within the family, at least in the early stages. However, most respondents seemed to feel that discussing a pregnancy later on – after several months, when it has begun to “show,” for example – is acceptable.

The research team organized two community workshops attended by 189 individuals – CBD agents, health professionals, village leaders, and pregnant and non-pregnant women. The first workshop was a strategy development exercise to identify ways to reach couples, and the second evaluated the implementation of these strategies. During the second workshop, 53 individual interviews were conducted to assess knowledge about STIs/HIV transmission from mother to child, condom availability and usage, partner communication on sexual issues, and strategies to involve men in their wives’ prenatal care. The specific objectives of this study were to:

- Understand the sexual and communication practices between men and women during pregnancy
- Identify strategies to encourage male participation in antenatal counseling sessions
- Find ways to identify pregnant women in the community to better offer them early antenatal care
- Use the information collected to develop educational materials and intervention strategies to encourage male participation in pregnancy.

The findings suggested that a minority of pregnant women interviewed experienced sexual desire during pregnancy. Most women and community members agreed that it is not acceptable for women to have sex during pregnancy.

*“You don’t sleep with a pregnant woman,”* – village chief.

Respondents indicated that abstinence from sex during the post-partum period should last between 40 days and two years. Many said relations should resume when the child begins walking, as birth spacing is a priority in the community. Women do not usually have the right to choose freely on sexual matters, however:

*“It is the man who brought you to his parents’ house so you are obligated to do what he wants,”* – female respondent.

However, a minority in the community suggested the following circumstances in which a woman may refuse to have sex with her husband:

- If the couple isn’t getting along, or if she wants to leave him
- If the marriage was forced
- If the woman has a child under 18 months old
- If the woman has a grown son who is married, so that she can focus on attending her daughter-in-law
- If she is tired or sick

- If her husband isn't satisfying her material needs
- If she doesn't want to get pregnant.

Women also indicated that they prefer to sleep elsewhere while they are pregnant, to avoid disagreements with their spouse:

*“When I am pregnant, I move to my mother-in-law's house and from that moment, I can no longer sleep with my husband,”* – female respondent.

Awareness of the effects of STIs/HIV on pregnancy was limited, even among CBD agents. Respondents suggested that fidelity is the best form of protection against disease, second to condom use in cases where fidelity is in doubt. People cited radio broadcasts and public marches as their main sources of information about HIV/AIDS. Others commented that CBD agents and village shopkeepers play a role in promoting condom use.

Couple communication is primarily focused on ways to ensure a successful pregnancy. Pregnant women expressed concerns regarding the financial resources required for medication, prenatal counseling, birth, food, and for the couple's peace of mind during and after the birth. Husbands were said to be more attentive to their wives' material and social needs during pregnancy. Both women and the general community said that pregnant women's needs preoccupy most husbands.

The community as a whole appeared willing to support initiatives for pregnant women. Husbands could give their wives money for healthcare or food during maternity, or provide them with the costs of or a means of transport, such as a bicycle. Men were generally reluctant to accompany their wives to antenatal care visits, except in a few rare cases of illness or long distance. However, some respondents said men would readily accompany their wives to counseling sessions if asked to do so.

The study identified the following strategies for reaching pregnant women:

- Contacting women's associations
- Asking mothers-in-law to be first informants about pregnancies
- Organizing home visits to counsel potentially pregnant women
- Consulting prenatal registers in health outlets
- Involving and consulting men in the village.

CBD agents identified 36 pregnant women during 123 counseling exercises, 60 pregnant women during 270 home visits, and 11 pregnant women during face-to-face discussions with health care providers. Given the difficulties involved, using a combination of strategies was the preferable option. After experimenting with these strategies, the team noted a lack of information on pregnancy and STIs/HIV in the community, and recommended that there be an ongoing dialogue with the community.

#### **Study 4. Understanding sexual behavior**

Understanding the nature of sexual behavior and networking in the community is essential to the design of appropriate and effective reproductive health and HIV/AIDS programs. There is insufficient information available on this highly sensitive subject as such private, hidden, and

often embarrassing information is, by its very nature, difficult to collect. A sexual networking study was carried out using a qualitative approach to review existing documents on sexual behavior in rural areas and to organize focus group discussions, in-depth interviews and informal discussions with target groups. The team was able to gather very little information on sexual networks in rural areas during the document review phase, as previous studies focused mainly on urban areas.

Four study sites were chosen: Kombissiri, located 42 km from Ouagadougou; Tanghin-Dassouri, 25 km from Ouagadougou; and two outlying villages, Vipalogo and Bonsrima. Researchers organized 12 group discussions with participants selected by age, sex and marital status. They also conducted nine individual interviews with village chiefs, religious leaders and respected female elders. Two in-depth interviews were conducted with sex workers. A total of 111 informal interviews were also conducted with out-of-school girls, market dealers, bar owners, female bar workers, and police.

The specific objectives of this study were to:

- Identify and describe sexual norms and values
- Identify and describe social settings that enable risky sexual behavior
- Identify sexual behaviors that put the population at risk for STIs/HIV and unwanted pregnancies
- Propose strategies to prevent these situations and behaviors.

The study suggested that sexual norms are changing over time, despite the strong influence of traditional norms and taboos. Changes include earlier sex among unmarried adolescents, increasing extramarital sex and sexual intercourse during pregnancy and during the menstrual cycle, times when sex has been traditionally proscribed. However, study participants indicated that the traditional value of chastity before marriage is still highly valued. According to one respondent, a virgin is *“a good girl, (who) listened well to the advice given by her father and mother.”* And a Muslim religious leader stated, *“A virgin girl and a chaste man who unite in marriage will have blessed children. These children will have knowledge and wealth if they desire.”* As can be seen in Tables 2 and 3, however, a sizeable proportion of men and women surveyed in the Bazèga community in 1998 were engaging in pre-marital sex.

**Table 2: Proportion of women reporting type of partner for first sexual experience**

	Unmarried (n = 96)	Married Monogamous (n = 303)	Married Polygamous (n = 248)
<b>Husband</b>	--	73%	73%
<b>Boyfriend</b>	95%	27%	26%
<b>Other</b>	5%	0	1%



**Table 3: Proportion of men reporting type of partner for first sexual experience**

	Unmarried (n = 30)	Married Monogamous (n = 42)	Married Polygamous (n = 750)
Wife	--	37%	38%
Girlfriend	87%	62%	51%
Sex Worker	7%	1%	1%
Other	6%	0	10%

Because practices such as early and forced marriages and polygamy are still practiced in these communities, many people involuntarily engage in sexual behavior that puts them at risk of contracting STIs/HIV, and/or having unwanted or early pregnancies. Several other factors were reported as possible causes of risky sexual behavior, including lack of control in the home, women seeking material and financial support through unprotected sex, imitation of peers who have more sexual experience, and alcohol and drug use. Additionally, there are a number of traditional community events, such as regular markets, funerals and the traditional *basga* harvest, that bring together large groups of young people and raise the likelihood of risky sexual behavior.

**Table 4: Frequency of condom use by gender**

Frequency	Men (n = 333)	Women (n = 161)
Frequently	25%	19%
Sometimes	44%	45%
Rarely	31%	36%

Although respondents cited several obstacles to condom use, which would provide protection (reduced pleasure, cost, perceived to contain viruses, of poor quality, resistance from religious leaders, male reticence), as can be seen in Table 4, among men and women surveyed, 25 and 19 percent

respectively said that they use condoms frequently. Moreover, among men who used a contraceptive the first time they had sex, three quarters of them used a condom.

Prostitution exists in the study area, but the key informants acknowledged only two sex workers who have relocated to the area from other communities. They reported that clients visit them at home and are expected to use condoms during intercourse.

This study demonstrated that sexual attitudes and behaviors are changing in rural Burkina Faso. Findings suggested the following programmatic recommendations:

- Create a mobile team of multi-disciplinary agents trained to initiate community activities
- Organize educational campaigns with communication methods such as video and film
- Make use of expertise from government ministries already familiar with community education campaigns
- Promote condom use in high-risk sexual situations including traditional ceremonies
- Involve sex workers in condom use promotion.

## Study 5. Adolescents

In Burkina Faso, 60 percent of the population is under the age of 20. A majority of first-time pregnant women in rural areas are likely to be still in, or just out of, adolescence. Working with adolescents is therefore not clearly distinct from working with young couples, or with pregnant women and their partners. This study combined two qualitative data collection approaches. Individual in-depth interviews were held with 51 adolescents, their spouses, parents, and NGO staff working with adolescents. Additionally, 12 focus group discussions were held, two with mothers, two with fathers, four with single adolescents and four with married adolescents. The team also reviewed data gathered during the 1996 and 1998 LSC population-based surveys. The specific objectives of this study were to:

- Identify the reproductive health needs of youth
- Explore parents' perceptions regarding their children's reproductive health needs
- Identify inadequacies in the services currently offered youth in the Bazèga community.

The results showed that, after unemployment, adolescents reported that STIs/HIV, unwanted pregnancies, and unsafe abortions are their most pressing problems. They also raised social and cultural issues, such as early and forced marriages and female genital cutting, as priorities. Males cited that while females are often preoccupied with concerns about getting married, for them the main worry is finding employment (in-depth interviews):

*"If a man isn't rich, he won't have a partner because love today is no longer real love, but materialistic love."*

*"It isn't possible for a man to go out with a girl if he doesn't have financial means because the girl has to buy clothes, and he must feed himself. So if he doesn't have at least 500 francs in his pocket, he'll never have a girl."*

*"For all material and financial needs, girls don't worry. Girls' financial needs push them to refuse men who don't have money."*

The majority of respondents felt that women should have their first sexual experience at about age 17. They also said that men should be sexually active by age 20, the age of maturity in the Mossi culture. However, according to those interviewed, the average age of first sexual experience for girls was actually around 15 years, and among the boys, between 15 and 17 years.

Some believed that having sex too young had negative health effects:

*"You shouldn't start too young because sexual relations tire the body."*

*"Early sexual activity causes early pregnancies and sexually transmitted infections."*

Youth reported that their parents often advise daughters to practice abstinence until they are married and disapprove of promiscuity among boys.

*"My mother advises me all the time to be calm in relation to boys and to avoid dances for my own good," – adolescent girl.*

In general, however, adolescents reported that they rarely talk to their parents about issues related to reproductive health. They will readily talk to their parents about jobs, unemployment,



poverty, and future prospects, but only in more intimate relationships do they talk about private issues such as reproductive health and sexuality. Respondents said that once adolescents are married they can discuss intimate matters with their parents because they are then considered adults. The study also suggested that parents are becoming more liberal regarding their children's right to choose their own partners.

**Table 5: Contraceptive use by women by age group**

	1996	1998
All Women 15-49 years old	17.6%	23.9%
Women 15-24 years old	14.5%	20.2%

Source: LSC community surveys 1996 and 1998

As shown in Table 5, adolescents make up more than 80 percent of contraceptive users, although prevalence is increasing in the general population as well. Adolescents reported that they prefer pills and condoms over other methods.

Respondents indicated that the needs of adolescents vary by gender and marital status. Young couples need information and services, particularly pertaining to contraception and sexual rights. Young wives reported that they wish their husbands would support them during the period of pregnancy. Unmarried adolescents need information on contraception, abortion, STIs/HIV, early pregnancy and the management of related problems. Unfortunately, existing health teams were not oriented to deliver RH services to adolescents, and so staff need further training in the delivery of care for adolescent health needs.

Suggestions from parents and youth converged on possible strategies for the way forward, which included structuring RH teams and counseling centers, training health and social workers to address adolescents' needs, and putting in place a penal system for forced marriages and FGC.

## Study 6. Cost of implementing LSC interventions

To assist the MOH if it were to replicate the LSC community-based approaches in other districts in the country, it is essential that the costs of implementing the different components are understood. A cost analysis of the CBD and clinic-strengthening activities was undertaken through technical assistance from FHI staff working on FRONTIERS. All costs were estimated from the perspective of the MOH. Expenditure data were obtained from MOH records, project documentation, and administrative records from the clinics in the control and intervention zones. Interviews with MOH personnel and clinic staff were used to supplement the archival data. Revenue figures were based upon the service provision records maintained at the clinic level.

All expenditures expected to yield 'returns' (i.e. to contribute to services) for more than one year were annualized based upon the expected useful life of the investment. These costs were then allocated to specific service categories (family planning, malaria, STIs/HIV, diarrhea, or prevention of female genital cutting). For each service category, a specific outcome or output measure was defined for use in the cost-effectiveness analysis.

The analysis focused on the first year of the program and compared the control zone with two different intervention zones. One intervention zone received only the clinic-strengthening activities (training and additional supplies and equipment), while the second intervention zone received clinic-strengthening activities plus training and introduction of 84 community-based distribution agents.

The analysis showed that both interventions were cost-effective ways of providing family planning information and services (Table 6), but neither was cost-effective for providing STIs/HIV services (Table 7).

**Table 6: Incremental cost-effectiveness ratios for family planning services by intervention per new FP user**

Comparison	Intervention	Incremental Cost (US\$)	Incremental Effectiveness (New Users)	Incremental Cost-Effectiveness Ratio (US\$ / New User)
Zone A vs. Zone C	Clinic-strengthening	\$2,104	540	\$3.90
Zone B vs. Zone C	Clinic-strengthening & CBD Program	\$8,031	980	\$8.20
Zone B vs. Zone A	Estimate of CBD Program Alone	\$5,927	440	\$13.50

**Table 7: Incremental cost-effectiveness ratios for STI treatment services by intervention (US\$ per additional antibiotic packet dispensed)**

Comparison	Intervention	Incremental Cost (US\$)	Incremental Effectiveness (New Users)	Incremental Cost-Effectiveness Ratio (US\$ / New Users)
Zone A vs. Zone C	Clinic-strengthening	\$777	– 23	Not Effective
Zone B vs. Zone C	Clinic-strengthening & CBD Program	\$6,250	– 14	Not Effective
Zone B vs. Zone A	Estimate of CBD Program Alone	\$5,473	9	\$608

Costs of introducing the CBD component were inflated by the heavy reliance on training, which cost more than US\$80 per CBD agent for the 84 agents trained. This was high because of the large number of trainers involved and because of the cost of providing each agent a bicycle. Both clinic-strengthening alone and the combination of clinic-strengthening and introduction of CBD agents appear to have increased the number of new users of modern contraceptive methods.

These findings suggest that to minimize the cost of introducing the CBD component and thereby make it more cost-effective, the number of trainers should be reduced. On-the-job training by program supervisors rather than formal training sessions would be worthwhile. The MOH should assess client ability and willingness to pay a premium for CBD agent services. Premiums could be either monetary or in-kind payments. The extent to which these revenues could fund a

monthly stipend for the CBD agents as a supplement to the commissions they earn, or offset program costs, should be assessed.

While clinic-strengthening activities were estimated to require an annualized investment of approximately US\$3,500 per zone, the introduction of CBD agents was estimated to require an annualized investment of approximately US\$20,000 per zone. In no case did the additional revenue generated offset the cost of the intervention. The majority (52%) of revenue from the CBD program was captured by the MOH. The remainder was divided among average commissions of US\$5.43 per agent per year and US\$80 per year for use by the local clinics.

In terms of cost-effectiveness, the clinic-strengthening activities alone were cost-effective, except as related to increasing access to malaria and STIs/HIV services. The combination of clinic strengthening and CBD program introduction was cost-effective except as related to increasing access to STIs/HIV services.